only a single monopoly provider of the service.<sup>26</sup> If this possibility were likely enough and if government thought that barriers to future entry were high enough to prevent entry of potential new innovators, then a case might exist for mandating some form of compatibility.

The Commission should keep these concerns in mind when it considers the question of whether or not to remove the Condition. **All** four costs of regulation that I identify above are potentially large and serious in this case. First, mandated interoperability will require some form of standard setting for interfaces -- whether by a private group or the Commission -- and this will limit firms' design choices for the nature of their own systems.

Second, a full-blown mandated interoperability regime is likely to be complex and expensive to run. Disputes will arise as to whether various practices prevent or degrade interoperability and some neutral body will be forced to adjudicate these. If a firm responds to mandated interconnection by agreeing to interconnect but then charges its competitors a high price when messages are transferred, those administering the standard will be forced to begin proceedings to determine a "fair and reasonable" interconnection price. The tangled and complicated history of the Commission's various interconnection proceedings make it abundantly clear that this is not a simple or easy task.

Third, there will be a potential for firms to "game" the standard setting process to disadvantage their competitors and damage competition. For example, all sorts of technical changes to one system might potentially interfere with or at least degrade interoperability. The administrator of the standard will then be forced to endlessly adjudicate complaints where one competitor attempts to interfere with the introduction of innovations by another competitor by claiming that they interfere with interoperability.

17

Some people have pointed to the market for computer operating systems as an example. See generally U.S. v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001).

Fourth, and perhaps most important, mandated interoperability will interfere with firms' incentives to innovate and bring to market new types of products and services because mandated interoperability will require innovators to share more of the gains from innovation with competing firms. This is because, to the extent new innovations interfere with interoperability, innovating firms might find themselves forced to share their innovations with other firms.

Therefore, in a rapidly evolving market such as the IM market -- where innovation of new products and new processes is of paramount importance -- the Commission would best protect and further the public interest by removing the Condition, since it creates costs and is not needed to insure the survival of multiple strong competitors.

#### IV. CONCLUSION

AOL's market share has been declining ever since the Commission entered the *Order* and, indeed, ever since its competitors entered the market. This and other evidence suggests that competition in this market is now strong and stable and, in particular, that there is no longer any plausible danger of the market "tipping" to AOL because of network effects. Where regulations such as the Condition no longer serve an evident pro-competitive purpose, they likely impose costs that are passed on to consumers in the form of reduced choice or decreased innovation in the market. For all of these reasons, I conclude that the Condition should be removed.

I declare that the foregoing is true and correct:

William P. Rogerson

Dated:

March 31, 2003

### **EXHIBIT 1**

# Curriculum Vitae of William P. Rogersou

**Personal** 

Date of birth: November 7,1955

Citizenship: American

Addresses: (Home): 494 Ash Street

Winnetka, IL 60093 (847) 441-8160

(Office): Department of Economics

2003 Sheridan Road Northwestern University Evanston, IL 60208 phone: (847) 491-8484 fax: (847) 491-7001

e-mail: wrogerson@northwestem.edu

### **Education**

B.A., Economics, University of Alberta, 1976 Ph.D., California Institute of Technology, 1980

# **Current Employment**

Professor of Economics, Northwestern University

#### **Honors, Awards and Research Grants**

Graduated from the University of Alberta with distinction, 1976

Earl C. Anthony Fellowship, 1976-77

Canada Council Doctoral Fellowship, 1979-80

Shelby Cullom Davis Fellowship, 1979

NSF Grant SES-8320451, "Moral Hazard, Reputation, and Product Quality," March 1984-March 1985

NSF Grant SES-8504304, "Moral Hazard, Reputation, and Product Quality," April 1985 - September 1987

NSF Grant IRI-8705477, "Contracting Under Asymmetric Information," July 1987 - December 1989

Named to Household International Professorship in Economics, September 1987 - August 1989

Lynde & Harry Bradley Foundation Research Grant, "An Economic Analysis of Defense Procurement Regulations," June 1989 - December 1991.

NSF Grant SES-8906751, "Profit Regulation of Defense Contractors," August 1, 1989 - July 31, 1991.

Olin Fellow at The Center for the Study of the Economy and the State, University of Chicago, October 1, 1989 - June 30, 1990.

Smith Richardson Foundation, Inc. Research Grant, "Economic Incentives and the Defense Procurement Process," March 1, 1993 - May 31, 1995.

Elected a Fellow of the Econometric Society, 1999.

# **Research and Teaching Interests**

Industrial Organization, Regulation, Telecommunications, Cost Accounting, Defense Procurement, and Health Care.

# **Employment History**

Research Assistant to Canadian Member of Parliament, Arnold Malone, June 1975 - September 1975

Teaching Assistant at University of Alberta, September 1975 - June 1976

Economist, Department of Industry, Trade and Commerce, Government of Alberta, June 1976 - September 1976

Research Assistant, Environmental Quality Laboratory, Caltech, June 1917 - September 1977

Economist, Long Range Planning and Structural Analysis Division, Department of Finance, Government of Canada, June 1978 - September 1978

Teaching Assistant to Professor Charles R. Plott, Division of Humanities and Social Sciences, Caltech, September 1979 - June 1980

Assistant Professor of Economics, Stanford University, September 1980 - August 1984

Associate Professor of Economics, Northwestern University, September 1984 - May 1990

Professor of Economics, Northwestern University, May 1990 - Present

Chair, Economics Department, Northwestern University, September 1996 - August 1998.

Chief Economist, Federal Communications Commission, June 1, 1998-May 31, 1999 (on leave from Northwestern for this year.)

Director, Northwestem Program in Mathematical Methods in the Social Sciences, September 2000- present.

## **Professional Activities**

Editor of Defense and Peace Economics, January 1995 - December 1998.

Member of the editorial board of <u>Defense and Peace Economics</u>, September 1991 - December 1998.

Member of the editorial board of Review of Accounting Studies,

September 1993 to present.

Member of the editorial board of <u>Journal of Industrial Economics</u>, October 1995- Sept. 1998.

Chief Economist of Federal Communications Commission, June 1, 1998 - May 31, 1999.

Member of the Illinois Economic Policy Council, September 1999 to September 2000

Consultant to: Federal Communications Commission, Federal Trade Commission, Institute for Defense Analysis, Logistics Management Institute, Office of the Secretary of Defense (Program Analysis and Evaluation), RAND Corporation, US Department of Justice

# **Refereed Publications**

"Aggregate Expected Consumer Surplus As a Welfare With an Application to Price Stabilization," Econometrica, 49, No. 2, (March 1980), pp. 423-436.

"Agriculture in Development: A Game-Theoretic Analysis," with Robert Bates, Public Choice, 35, (1980), pp. 513-527.

"The Social Costs of Monopoly and Regulation: A Game-Theoretic Analysis," Bell *Journal* of Economics, 13, No. 2, (Autumn 1982), pp. 391-401.

"Reputation and Product Quality," Bell Journal of Economics, 14, No. 2, (Fall 1983), 508-515.

- "Consumer Misperceptions, Market Power and Product Safety," with Mitchell Polinsky, *Bell Journal of Economics*, 14, No. 2, (Fall 1983), 581-589.
- "A Note on the Incentive for a Monopolist to Increase Fixed Costs as a Bamer to Entry," *Quarterly Journal of Economics*, 396, May 1984, 399-402.
- "Efficient Reliance and Damage Measures for Breach of Contract," *Rand Journal of Economics*, Spring 1984, 39-53.
- "Repeated Moral Hazard," *Econometrica*, 53, January 1985, 69-76.
- "The First-Order Approach to Principal Agent Problems," *Econometrica*, 53, November 1985, 1357-1368.
- "Robust Trading Mechanisms" with Kathleen Hagerty, *Journal of Economic Theory*, 42, June 1987, 94-107.
- "The Dissipation of Profits by Brand Name Capital and Entry When Price Guarantees Quality," *Journal & Political Economy*, 95, August 1987, 797-809.
- "A Note on the Existence of Single Price Equilibrium Price Distributions," *Review of Economic Studies*, 54, April 1987,339-342.
- "Price Advertising and the Deterioration of Product Quality," *Review of Economic Studies*, 55, April 1988, 215-230.
- "Profit Regulation of Defense Contractors and Prizes for Innovation," *Journal of Political Economy*, 97, December 1989, 1284-1305.
- "Quality vs. Quantity In Military Procurement," *American Economic Review*, 80, March 1990, 83-92.
- "Excess Capacity in Weapons Production: **An** Empirical Analysis," *Defence Economics*, **2**, 1991, 235-250.
- "Optimal Depreciation Schedules for Regulated Utilities," *Journal of Regulatory Economics*, 4, 1992, 5-33.
- "Contractual Solutions to the Hold-Up Problem," *Review of Economic Studies*, 59, October 1991,777-794.
- "Incentives, the Budgetary Process, and Inefficiently Low Production Rates in Defense Procurement," *Defence Economics*, 3, 1991, 1-18.
- "Overhead Allocation and Incentives for Cost Minimization in Defense Procurement," *The Accounting Review*, 67, 1992, 671-690.
- "Choice of Treatment Intensities by a Nonprofit Hospital Under Prospective Pricing," *Journal of Economics and Management Strategy*, 3(1), Spring 1994, 7-52...
- "Economic Incentives and the Defense Procurement Process," *Journal of Economic Perspectives*, 8(4), Fall 1994, 65-90.
  - "Inter-Temporal Cost Allocation and Managerial Investment Incentives," *Journal of Political Economy*, 105(4), 1997, 770-795.
- "The Regulation of Broadband Telecommunications, The Principle of Regulating Narrowly Defined Input Bottlenecks, and Incentives for Investment and Innovation," *University of Chicago Legal Forum*, 2000,119-147.
- "The Use of Simple Menus of Contracts in Cost-Based Procurement and Regulation," *American Economic Review*, June 2003, *forthcoming*.

#### **Other Publications**

- "Electric Generation Plants" Appendix F.1 in *Implementing Tradable Emissions*Permits for Sulfur Oxides Emissions in the South Coast Air Basin, Vol. II, by Glen R. Cass, Robert W. Hahn, Roger G. Noll, ARB Contract No. A8-141-31, June 30, 1982.
- "A Comment on Political Institutions and Fiscal Policy: Evidence from the U.S. Historical Record," *Journal of Law Economics and Organization*, 6, Special Issue, Conference on "The Organization of Political Institutions", 1991, 155-166.
- "Inefficiently Low Production Rates in Defense Procurement: An Economic Analysis," Leitzel, Jim and Jean Tirole, eds., *Incentives in Defense Procurement*. Boulder: Westview Press, 1993.
- Profit Regulation of Defense Contractors and Prizes for Innovation, RAND, R-3635-PA&E, 1991,
- An Economic Framework for Analyzing DoD Profit Policy, RAND, R-3860-PA&E, 1991.
- Overhead Allocation and Incentives for Cost Minimization in Defense Procurement, RAND, R-4013-PA&E, 1992.
- "Review of 'A Theory **of** Incentives in Procurement and Regulation," book review, *Journal of Political Economy*, 102, 1994,397-402
- On the Use of Transfer Prices in DoD: The Case & Repair and Maintenance & Depot Level Reparables by the Air Force, Logistics Management Institute Paper PA303RD2, January 1995, Logistics Management Institute, McLean, VA.
- "Incentive Models of the Defense Procurement Process," in Hartley, Kieth, and Todd Sandler, eds., *The Handbook of Defense Economics*, North Holland, 1995, 309-346...
- "The Economics of University Indirect Cost Reimbursement in Federal Research Grants," (with Roger Noll) in Roger Noll, ed., *Challenges to the Research University*. Washington: Brookings Institution, 1997.
- "New Economic Perspectives on Telecommunications Regulation," (review of *Competition in Telecommunications*, by Jean-Jacques Laffont and Jean Tirole), *University & Chicago Law Review*, 67, Fall 2000, 1489-1505.